What is claimed is:

1. A method, comprising:

providing an ophthalmic lens having opposing surfaces defining ~~an~~a prescription (Rx) optical power of the ophthalmic lens, the opposing surfaces further defining an optical center of the ophthalmic lens, and the ophthalmic lens comprising an edge defining a perimeter of the ophthalmic lens;

obtaining a pattern of three or more optical elements; and

forming the optical elements on the lens according to the pattern,

wherein the at least three optical elements each have an optical effect different from the Rx optical power of the ophthalmic lens, and after forming the optical elements the Rx optical power of the ophthalmic lens remains unchanged,

wherein (i) the pattern is radially asymmetric, or (ii) the ophthalmic lens has at least one optical or structural characteristic that is radially asymmetric with respect to the ophthalmic lens; and

wherein (i) the ophthalmic lens is radially asymmetric and the pattern is formed on the ophthalmic lens according to a specified orientation, or (ii) one or more optical or structural features are formed within the ophthalmic lens, on at least one surface of the ophthalmic lens, and/or at edge of the ophthalmic lens, the one or more optical or structural features specifying a rotational orientation of the ophthalmic lens.

~~2. A method, comprising:~~

~~receiving an ophthalmic lens having opposing surfaces defining an optical power of the ophthalmic lens, the opposing surfaces further defining an optical center of the ophthalmic lens, and the ophthalmic lens comprising an edge defining a perimeter of the ophthalmic lens, the ophthalmic lens being optically and structurally radially symmetric about the optical axis;~~

~~obtaining a pattern of three or more optical elements, wherein the pattern is radially asymmetric;~~

~~forming the optical elements on the lens according to the pattern;~~

~~forming one or more optical or structural features within the ophthalmic lens, on at least one surface of the ophthalmic lens, and/or edge of the ophthalmic lens, the one or more optical or structural features specifying the rotational orientation of the lens,~~

~~wherein the at least three optical elements each have an optical effect different from the optical power of the ophthalmic lens.~~

~~3. A method, comprising:~~

~~providing an ophthalmic lens having opposing surfaces defining an optical power of the ophthalmic lens, the opposing surfaces further defining an optical center of the ophthalmic lens, and the ophthalmic lens comprising an edge defining a perimeter of the ophthalmic lens, the ophthalmic lens having at least one optical or structural characteristic that is radially asymmetric about the optical axis;~~

~~obtaining a pattern of three or more optical elements, wherein the pattern is radially asymmetric about its center;~~

~~specifying, using a data processing apparatus, a relative orientation of the ophthalmic lens and the pattern; and~~

~~forming the optical elements on the lens according to the pattern and the specified orientation,~~

~~wherein the at least three optical elements each have an optical effect different from the optical power of the ophthalmic lens.~~

~~4. A method, comprising:~~

~~receiving an ophthalmic lens having opposing surfaces defining an optical power of the ophthalmic lens, the opposing surfaces further defining an optical center of the ophthalmic lens, and the ophthalmic lens comprising an edge defining a perimeter of the ophthalmic lens, the ophthalmic lens being radially symmetric about the optical axis;~~

~~obtaining a pattern of three or more optical elements, wherein the pattern is radially asymmetric;~~

~~forming the optical elements on the lens according to the pattern;~~

~~forming one or more optical or structural features within the ophthalmic lens, on at least one surface of the ophthalmic lens, and/or edge of the ophthalmic lens, the one or more optical or structural features specifying a rotational orientation of the lens with respect to an axis passing through a geometric center of the lens,~~

~~wherein the at least three optical elements each have an optical effect different from the optical power of the ophthalmic lens.~~

~~5~~2. The method of claim 1~~any of claims 1-4~~, wherein the pattern is selected to reduce progression of myopia in the human patient.

~~6~~3. The method of claim 1~~any of claims 1-4~~, wherein the optical elements are selected from the group consisting of protrusions on one or both of the surfaces, depressions on one or both of the surfaces, and inclusions in the lens material having a refractive index different from a refractive index of the lens material.

~~7~~4. The method of claim 1~~any of claims 1-4~~, wherein the optical elements are selected from the group consisting of light scattering centers, lenslets, and annular Fresnel lens elements.

~~8~~5. The method of claim 1~~any of claims 1-4~~, wherein the optical elements comprise light scattering centers which reduce a contrast of an image viewer by a user of the ophthalmic lens viewed through the pattern.

~~9~~6. The method of claim 1~~any of claims 1-4~~, wherein the optical elements comprise one or more lenslets having an optical power different from the optical power of the ophthalmic lens that provide myopic defocus for a human patient.

~~10~~7. The method of claim 1~~any of claims 1-4~~, wherein the pattern comprises one or more apertures free of the optical elements.

~~11~~8. The method of claim ~~10~~7, wherein an optical axis of the lens intersects an aperture of the one or more apertures.

~~12~~9. The method of claim 1~~any of claims 1-4~~, wherein an outline of the pattern and/or a density distribution of the optical elements define an image viewable from a world side of eyeglasses containing the ophthalmic lens.

~~13. The method of any of claims 1-4, wherein the structural characteristic is an additional pattern of optical elements on one of the opposing surfaces and the pattern of optical elements is formed on the other of the opposing surfaces.~~

~~14. The method of claim 13, wherein the pattern of optical elements and the additional pattern of optical elements together define an image viewable from a world side of eyeglasses containing the ophthalmic lens.~~

~~15~~10. The method of claim 1~~any of claims 1-4~~, wherein the pattern is obtained by determining, using the data processing apparatus, the pattern based on one or more input parameter values selected from the group consisting of: a lens prescription for a human patient, a pupil size of the human patient, a vergence of the human patient, a pupillary distance of the human patient, a gaze angle of the human patient, a measure of myopic progression of the human patient, a predisposition of the human patient to myopia, a measure of conspicuity of the pattern of optical elements, a measure of comfort level of the human patient, an optical center height for a given pupil relative to a frame, the lens final shape and size once mounted to the spectacle frame, a user preference, and an eyecare professional's preference.

~~16. The method of any of claims 1-4, wherein the input parameter values comprises one or more parameters selected from the group consisting of: a lens prescription (Rx) for a human patient, a pupil size of the human patient, a vergence of the human patient, a pupillary distance of the human patient, a gaze angle of the human patient, a measure of myopic progression of the human patient, a predisposition of the human patient to myopia, a measure of conspicuity of the pattern of optical elements, a measure of comfort level of the human patient, an optical center height for a given pupil relative to a frame, the lens final shape and size once mounted to the spectacle frame, a user preference, and an eyecare professional's preference.~~

~~17~~11. The method of claim 1~~any of claims 1-4~~, wherein the pattern is obtained by selecting the pattern from among a plurality of predetermined patterns, wherein the pattern specifies a size, shape, and relative location of the three or more optical elements.

~~18. The method of any of claims 1-4, wherein the pattern specifies a size, shape, and relative location of the three or more optical elements.~~

~~19~~12. The method of claim 1~~any of claims 1-4~~, wherein the optical elements are formed on one or both of the opposing surfaces of the ophthalmic lens or in a lens material of the ophthalmic lens.

~~20. The method of any of claims 1-4, wherein the optical elements are formed in a lens material of the ophthalmic lens.~~

~~21~~13. The method of claim 1~~any of claims 1-4~~, wherein the ophthalmic lens is an eyeglass lens or a contact lens.

~~22. The method of any of claims 1-4, wherein the ophthalmic lens is a contact lens.~~

~~23~~14. The method of claim 1~~any of claims 1-4~~, wherein the pattern is obtained based on at least one parameter associated with a human patient.

~~24~~15. The method of claim 1~~any of claims 1-4~~, wherein the at least one optical or structural characteristic comprises a shape of the perimeter of the ophthalmic lens.

~~25~~16. The method of claim ~~24~~15, wherein the perimeter of the ophthalmic lens is shaped to fit a spectacle frame.

~~26~~17. The method of claim ~~24~~15, wherein the perimeter of the ophthalmic lens defines a circle and the at least one optical or structural characteristic comprises a deviation of the edge of the lens from the circle.

~~27~~18. The method of claim ~~24~~15, wherein the at least one optical or structural characteristic comprises one or more fiducial markings on one of the surfaces and/or the edge of the ophthalmic lens.

~~28. The method of any of claims 1-4, wherein the ophthalmic lens is a plano lens.~~

~~29. The method of any of claims 1-4, wherein the ophthalmic lens is a prescription lens.~~

~~30~~19. The method of claim 1~~any of claims 1-4~~, wherein the ophthalmic~~prescription~~ lens is for correcting an astigmatism and the at least one structural characteristic comprises a cylinder axis of the ophthalmic lens.

~~31~~20. The method of claim 1~~any of claims 1-4~~, wherein the ophthalmic~~prescription~~ lens is a multifocal lens and the at least one structural characteristic comprises an optical power distribution of the multifocal lens.

~~32~~21. The method of claim 1~~any of claims 1-4~~, wherein specifying the relative orientation comprises rotating the pattern and/or rotating the ophthalmic lens about the optical axis.

~~33~~22. The method of claim ~~32~~21, wherein specifying the relative orientation comprises measuring the optical axis of the ophthalmic lens and determining, using the data processing apparatus, where to form the optical elements on the surface of the ophthalmic lens based on the axis measurement.

~~34~~23. The method of claim 1~~any of claims 1-4~~, wherein forming the optical elements comprises selectively exposing the surface of the ophthalmic lens to laser radiation.

~~35~~24. The method of claim ~~34~~23, wherein the laser radiation has a wavelength and a power sufficient to selectively melt, foam, or ablate a lens material of the ophthalmic lens at a surface of the ophthalmic lens.

~~36~~25. The method of claim 1~~any of claims 1-4~~, wherein forming the optical elements comprises selectively depositing a material onto the surface of the ophthalmic lens.

~~37. The method of claim 36, wherein forming the optical elements further comprises curing the material selectively deposited onto the surface of the ophthalmic lens.~~

~~38. The method of claim 37, wherein the material is cured using UV radiation.~~

~~39. The method of claim 36, wherein the material is selectively deposited by ink jetting the material onto the surface of the ophthalmic lens.~~

~~40~~26. The method of claim 1~~any of claims 1-4~~, further comprising shaping the edge of the ophthalmic lens according to a pair of eyeglass frames.

~~41. The method of claim 40, wherein the perimeter is shaped prior to forming the optical elements on the surface of the ophthalmic lens.~~

~~42. The method of claim 40, wherein the perimeter is shaped after forming the optical elements on the surface of the ophthalmic lens.~~

~~43. An article, comprising:~~

~~an ophthalmic lens having opposing surfaces defining an optical power of the ophthalmic lens, the opposing surfaces further defining an optical center of the ophthalmic lens, and the ophthalmic lens comprises an edge defining a perimeter of the ophthalmic lens, the ophthalmic lens having at least one optical or structural characteristic that is not radially symmetric about the optical center;~~

~~a pattern of three or more optical elements having an outline and/or a density distribution defining an image viewable from a world side of eyeglasses containing the ophthalmic lens,~~

~~wherein the image is not radially symmetric about the optical center.~~

~~44. A method, comprising:~~

~~receiving, at a data processing apparatus, user-specified input parameter values;~~

~~determining, using the data processing apparatus and based on the input parameter values, a pattern of optical elements for forming on a surface of an ophthalmic lens; and~~

~~providing, on a surface of the ophthalmic lens, optical elements according to the pattern.~~

~~45. The method of claim 44, wherein the input parameter values comprises one or more parameters selected from the group consisting of: a lens prescription (Rx) for the human patient, a pupil size of the human patient, a vergence of the human patient, a pupillary distance of the human patient, a gaze angle of the human patient, a measure of myopic progression of the human patient, a predisposition of the human patient to myopia, an optical~~

~~center height for a given pupil relative to a frame, a lens final shape and size once mounted to the spectacle frame, a measure of conspicuity of the pattern of optical elements, and a measure of comfort level of the human patient.~~

~~46. The method of claim 45, wherein receiving the input parameter values comprises measuring the Rx for the human patient. (e.g., by subjective refraction and/or wavefront measurement)~~

~~47. The method of claim 46, wherein receiving the input parameter values comprises comparing the Rx for the human patient to prior Rx measurements and establishing the measure of myopic progression of the human patient based on the comparison.~~

~~48. The method of claim 45, wherein receiving the input parameter values comprises presenting multiple example patterns of optical elements each having different visibility to the human patient and receiving from the human patient a selection from among the multiple example patterns.~~

~~49. The method of claim 48, wherein presenting multiple example patterns of optical elements to the human patient comprises positioning each of the example patterns in the human patient's line of sight allowing the human patient to look through each of the patterns to allow the human patient to select from the multiple example patterns based on a comfort level looking through each of the patterns.~~

~~50. The method of claim 48, wherein presenting multiple example patterns of optical elements to the human patient comprises allowing the human patient to evaluate how conspicuous each example pattern appears and allowing the human patient to select from the multiple patterns based on the conspicuity of each of the example patterns.~~

~~51. The method of claim 44, wherein determining the pattern of optical elements comprises selecting the pattern from a plurality of predetermined patterns of optical elements.~~

~~52. The method of claim 44, wherein determining the pattern of optical elements comprises calculating one or more attributes of the optical elements based on the input~~

~~parameter values, the attributes being selected from the group consisting of a shape of optical elements, a size of optical elements, a spacing between optical elements, a density of optical elements, and an area on the surface of the first ophthalmic lens (e.g., finished ophthalmic lens) on which to provide the optical elements.~~

~~53. The method of claim 44, wherein the pattern of optical elements comprise one or more apertures free of optical elements and determining the pattern of optical elements comprises determining one or more attributes of the one or more apertures.~~

~~54. The method of claim 53, wherein the attributes of the one or more apertures are selected from the group consisting of an aperture shape, and an aperture size, and an aperture location on the surface of the first stock ophthalmic lens.~~

~~55. The method of claim 44, wherein the optical elements comprise light scattering centers.~~

~~56. The method of claim 44, wherein the optical elements comprise lenslets.~~

~~57. The method of claim 44, wherein the first ophthalmic lens (e.g., with finished surfaces) is selected or generated based on a lens prescription (Rx) for the human patient.~~

~~58. The method of claim 44, wherein the first ophthalmic lens is a radially symmetric lens.~~

~~59. The method of claim 44, wherein the first stock ophthalmic lens is a radially asymmetric lens.~~

~~60. The method of claim 59, wherein providing the pattern of optical elements comprises orienting the pattern relative to first ophthalmic lens (e.g., with finished surfaces) according to the radial asymmetry of the first ophthalmic lens.~~

~~61. The method of claim 60, wherein the radially asymmetric lens has a cylinder axis.~~

~~62. The method of claim 44, wherein the plurality of finished ophthalmic lenses comprises single vision lenses and multi-focal lenses.~~

~~63. The method of claim 62, wherein the multi-focal lenses comprise bifocal lenses and/or progressive lenses.~~

~~64. The method of claim 63, wherein upon selecting a multi-focal lens, providing the pattern of optical elements comprises orienting the pattern relative to the first ophthalmic lens (e.g., with finished surfaces) according to an optical power distribution of the multi-focal lens.~~

~~65. The method of claim 44, wherein providing the optical elements comprises orienting the pattern relative to the ophthalmic lens (e.g., with finished surfaces) prior to forming the optical elements according to the pattern on the surface of the ophthalmic lens.~~

~~66. The method of claim 65, wherein orienting the pattern relative to the stock ophthalmic lens comprises aligning an axis of the ophthalmic lens with the pattern of optical elements.~~

~~67. The method of claim 66, wherein aligning the axis of the stock ophthalmic lens comprises measuring the axis and determining, using the data processing apparatus, where to form the optical elements on the surface of the stock ophthalmic lens based on the axis measurement.~~

~~68. The method of claim 44, wherein providing the optical elements comprises selectively exposing the surface of the stock ophthalmic lens to laser radiation.~~

~~69. The method of claim 68, wherein the laser radiation has a wavelength and a power sufficient to selectively melt a lens material of the stock ophthalmic lens at the surface of the stock ophthalmic lens.~~

~~70. The method of claim 68, wherein the laser radiation has a wavelength and a power sufficient to ablate or foam a lens material of the stock ophthalmic lens at the surface of the stock ophthalmic lens.~~

~~71. The method of claim 44, wherein providing the optical elements comprises selectively depositing a material onto the surface of the stock ophthalmic lens.~~

~~72. The method of claim 71, wherein providing the optical elements further comprises curing the material selectively deposited onto the surface of the stock ophthalmic lens.~~

~~73. The method of claim 72, wherein the material is cured using UV radiation.~~

~~74. The method of claim 71, wherein the material is selectively deposited by ink jetting the material onto the surface of the stock ophthalmic lens.~~

~~75. The method of claim 44, further comprising shaping a perimeter of the stock ophthalmic lens according to a spectacle frames.~~

~~76. The method of claim 75, wherein the perimeter is shaped prior to forming the optical elements on the surface (e.g., finished surface) of the ophthalmic lens.~~

~~77. The method of claim 75, wherein the perimeter is shaped after forming the optical elements on the surface of the ophthalmic lens.~~

~~78. A method for forming an ophthalmic lens for reducing myopic progression in a human patient, comprising:~~

~~receiving, at a data processing apparatus, information characterizing the ophthalmic lens based on a refractive error of the human patient;~~

~~determining, by the data processing apparatus, a pattern of optical elements for forming on a surface of the ophthalmic lens, the pattern of optical elements being selected for reducing myopic progression of the human patient; and~~

~~making the ophthalmic lens based on the information and the pattern of optical elements,~~

~~wherein a surface of the ophthalmic lens comprises one or more portions having a base curvature corresponding to an optical power for correcting the refractive error of the human patient and the pattern of optical elements.~~

~~79. The method of claim 78, wherein making the ophthalmic lens comprises selecting a first stock ophthalmic lens from a plurality of stock ophthalmic lenses and forming the pattern of optical elements on a surface of the first stock ophthalmic lens.~~

~~80. The method of claim 78, wherein making the ophthalmic lens comprises selecting a first stock ophthalmic lens from a plurality of stock ophthalmic lenses and grinding at least one surface of the first stock ophthalmic lens to provide a lens having the optical power for correcting the refractive error of the human patient.~~

~~81. The method of claim 78, wherein making the ophthalmic lens comprises forming a lens material to provide the surface of the ophthalmic lens.~~

~~82. The method of claim 78, wherein the pattern of optical elements is determined based on one or more parameters selected from the group consisting of: a lens prescription (Rx) for the human patient, a pupil size of the human patient, a vergence of the human patient, a pupillary distance of the human patient, a gaze angle of the human patient, a measure of myopic progression of the human patient, a predisposition of the human patient to myopia, an optical center height for a given pupil relative to a frame, a lens final shape and size once mounted to the spectacle frame, a measure of conspicuity of the pattern of optical elements, and a measure of comfort level of the human patient.~~

~~83. The method of claim 5, wherein determining the pattern of optical elements comprises calculating one or more attributes of the optical elements based on the parameter values, the attributes being selected from the group consisting of a shape of optical elements, a size of optical elements, a spacing between optical elements, a density of optical elements, and an area on the surface of the first stock ophthalmic lens on which to provide the optical elements.~~

~~84. The method of claim 78, wherein determining the pattern of optical elements comprises selecting the pattern from a plurality of predetermined patterns of optical elements.~~

85. The method of claim 78, wherein the pattern of optical elements comprises one or more apertures free of optical elements and determining the pattern of optical elements comprises determining one or more attributes of the one or more apertures.

86. The method of claim 85, wherein the attributes of the one or more apertures are selected from the group consisting of an aperture shape, and an aperture size, and an aperture location on the surface of the first stock ophthalmic lens.

87. The method of claim 78, wherein the optical elements comprise light scattering centers.

88. The method of claim 78, wherein the optical elements comprises lenslets.

89. The method of claim 78, further comprising shaping a perimeter of the ophthalmic lens according to a pair of eyeglass frames selected for the human patient.

90. A system for forming an ophthalmic lens for reducing myopic progression in a human patient from a stock ophthalmic lens selected for the human patient, the system comprising:

an input terminal for receiving information about the stock ophthalmic lens and information about the human patient;

a data processing apparatus programmed to receive the information about the stock ophthalmic lens and the information about the human patient from the input terminal and to output a pattern of optical elements for forming on a surface of the stock ophthalmic lens, the pattern of optical elements being selected to reduce myopic progression of the human patient; and

a lens surface modification apparatus arranged to receive the pattern of optical elements output by the data processing apparatus and to form optical elements on a surface of the ophthalmic lens according to the pattern.

91. The system of claim 90, wherein the lens surface modification apparatus comprises a printing apparatus.

92. The system of claim 91, wherein the printing apparatus is an ink jet printer.

~~93. The system of claim 90, wherein the lens surface modification apparatus comprises a laser exposure apparatus.~~

~~94. The system of claim 90, wherein the input terminal comprises a barcode scanner for scanning a barcode associated with the stock ophthalmic lens and the human patient.~~

~~95. The method of any of claims 1-4, further comprising adhering a block to a surface of the ophthalmic lens.~~

~~96. The method of claim 95, wherein the block is adhered prior to forming the optical elements on the lens according to the pattern.~~

~~97. The method of claim 96, wherein further comprising removing the block from the surface of the ophthalmic lens after forming the optical elements.~~

~~98. The method of claim 96, wherein the surface on which the block is adhered is opposite to a surface on which the optical elements are formed.~~

~~99. The method of claim 96, further comprising edging the ophthalmic lens after forming the optical elements to provide an edged ophthalmic lens suitable for mounting in a pair of eyeglass frames.~~